

REMARKS

This amendment is responsive to the Office Action mailed on July 7, 2009, and is concurrently filed with a Request for Continued Examination (RCE).

Claims 8 and 13-22 are pending in the application. Claims 8 and 20 have been amended. No claims have been canceled or added by this response. No amendment to the specification has been made.

CLAIM REJECTIONS - 35 USC § 102

Claims 8 and 13-22 are rejected under 35 U.S.C. §102(b) as being anticipated by Rosenberg et al. (US Patent No. 6,147,674).

Claim 8, as amended herein, recites a control device for moving at least one machine element of a machine tool or production machine. The control device includes a control element adapted for deflection from a rest position, and a sensor measuring a deflection of the control element and generating in response to a measured magnitude and duration of the deflection a set value for a controller to move the machine element. The control device further includes means for providing electrical feedback pulses to the control element to generate a corresponding pulse-shaped mechanical feedback to be detected by an operator, wherein the pulses are generated both during movement of the control element from the rest position and while the control element is held in a deflected steady state, with a number of the provided pulses being commensurate with a change in the set value.

As explained in more detail in paragraph [0008] of the specification, commercially available joysticks or joy-wheels do not provide haptic feedback to an operator, as is the case with a handwheel, for example. Unlike with a handwheel, the distance traveled by the machine axis not only depends on the static deflection of the control element, but also on length of time the operator maintains a certain magnitude of the deflection.

According to the rejection over US Patent No. 6,147,674, the examiner asserts that Rosenberg discloses a control device for displacing at least one machine element of a machine tool or production machine. Further according to the rejection, the control device has a control element (user object 34 (i.e. joystick); Col. 10, Ln. 30-31, FIG. 1) adapted to be deflected from a rest position (Col. 12, Ln. 30-38, FIG. 3); means rendered responsive to a magnitude and duration of a deflection of the control element (Col. 13, Ln. 54-57, FIG. 3) for generating a set value (i.e. degrees of freedom; Col. 9, Ln. 19-25) for a controller to move the machine element (Col. 14, Ln. 32-40, FIG. 4); and means for providing a pulse-shaped mechanical feedback to an operator (Col. 44, Ln. 3-6, FIG. 18) when the set value generated by the control element is changed as a result of the deflection of the control element from the rest position or when the control element is held in a deflected steady state (Col. 44, Ln. 47-56, FIG. 18).

While Rosenberg discloses feedback via the joystick to simulate a force encountered by the excursion of the joystick, there is no teaching in Rosenberg that *the number of the provided pulses is commensurate with a change in the set value*, which is essential for replacing a handwheel having "clicks" to indicate the position of the handwheel with a joystick.

Accordingly, the interface device 14 of Rosenberg, which provides the haptic feedback to the joystick based on force feedback received from the host computer system 12, operates different from the means for providing electrical feedback pulses to the control element according to the present invention, which transmits pulse-shaped haptic signals to the control element (e.g., joystick) that depend solely on movement of the control element from the rest position and the time during which the control element is held in a deflected steady state, with a number of the provided pulses being commensurate with a change in the set value.

For the reasons set forth above, it is applicant's contention that Rosenberg neither teaches nor suggests the features of the present invention, as recited in independent claims 8, 20.

Claims 13-19 which depend from claim 8 and therefore contain all the limitations thereof, and claims 21-22 which depend from claim 20 and therefore contain all the

limitations thereof, patentably distinguish over the applied prior art in the same manner as claims 8 and 20, respectively.

Withdrawal of the rejection under 35 U.S.C. §102(b) is thus respectfully requested.

CONCLUSION

In view of the above, each of the presently pending claims in this application is considered patentably differentiated over the prior art of record and believed to be in immediate conditions for allowance.

Reconsideration and allowance of the present application are thus respectfully requested.

Should the Examiner consider necessary or desirable any formal changes anywhere in the specification, claims and/or drawing, then it is respectfully requested that such changes be made by Examiner's Amendment, if the Examiner feels this would facilitate passage of the case to issuance. If the Examiner feels that it might be helpful in advancing this case by calling the undersigned, applicant would greatly appreciate such a telephone interview.

Respectfully submitted,

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